# HIGH PERFORMANCE conga-TS67

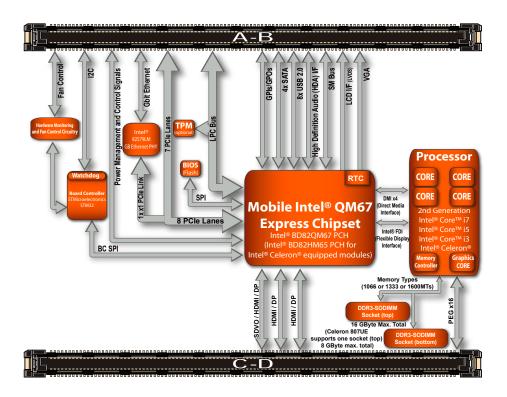


- COM Express Type 6
- Based on 2nd Generation Intel<sup>®</sup> Core<sup>™</sup> low-power processors
- Soldered CPUs for higher shock resistance
- High end graphics performance
- Intel<sup>®</sup> Turbo Boost Technology 2.0



| Formfactor                | COM Express <sup>™</sup> Basic   (95 x 125 mm)   Type 6 Connector Layout                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |  |  |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| CPU                       | Intel® Celeron <sup>™</sup> 807UE 1x 1.0GHz 1MB L3 cache 1333MT/s TDP 10 W<br>Intel® Celeron <sup>™</sup> 827E 1x 1.4GHz 1.5MB L3 cache 1333MT/s TDP 17 W<br>Intel® Celeron <sup>™</sup> 847E 2x 1.1GHz 2MB L2 cache 1333MT/s TDP 17 W<br>Intel® Core <sup>™</sup> i3-2340UE 2x 1.3GHz 3MB L2 cache 1333MT/s TDP 17 W<br>Intel® Core <sup>™</sup> i7-2610UE 2x 1.5GHz 3MB L2 cache 1333MT/s TDP 17 W<br>Intel® Core <sup>™</sup> i7-2655LE 2x 2.2GHz 4MB L2 cache 1333MT/s TDP 25 W<br>Intel® Turbo Boost Technology 2.0   Intel® Hyper-Threading Technology   Integrated dual channel memory controller  <br>memory bandwidth   Integrated Intel® HD Graphics 3000 with dynamic frequency up to 1.2GHz   Intel® Clear Video HD |  |  |  |  |  |  |
| DRAM                      | 2 Sockets   SO-DIMM DDR3 up to 1600MT/s and 16 GByte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |
| Chipset                   | Mobile Intel® 6 Series Chipset: Intel® QM67 / Intel® HM65 (Intel® Celeron™ version)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |
| Ethernet                  | Intel® 82579 GbE LAN Controller with AMT 7.0 support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |
| I/O Interfaces            | 7x PCI Express <sup>™</sup> GEN. 2.0 lanes   1x PEG   2x Serial ATA® with 6 Gb/s   2x Serial ATA® with 3 Gb/s (AHCI) RAID 0/1/5/10 support (QM67 only)   2x ExpressCard®   8x USB 2.0 (EHCI)   LPC bus   I²C bus (fast mode / 400 kHz / multi-master)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |
| Sound                     | Digital High Definition Audio Interface with support for multiple audio codecs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |  |  |
| Graphics                  | Intel® Flexible Display Interface (FDI)   OpenGL 3.0 and DirectX10.1 support   Two independent pipelines for full dual view support optional High performance hardware MPEG-2 decoding   WMV9 (VC-1) and H.264 (AVC) support Blu-ray support @ 40 MBit/s   hardware motion compensation                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |
| LVDS                      | Dual channel LVDS transmitter   Supports flat panels 2x24 Bit interface   VESA mappings   resolutions up to 1920x1200   Automatic Panel Detection via EDID/EP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |
| Digital Display Interface | 1x SDVO / DisplayPort 1.1 / TMDS (DVI / HDMI)   2x DisplayPort 1.1 / TMDS (DVI   HDMI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |
| CRT Interface             | 350 MHz RAMDAC   resolutions up to QXGA (2048x1536)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |
| congatec Board Controller | Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board Information   Board Statistics   BIOS Setup Data Backup<br>I²C bus (fast mode / 400 kHz / multi-master)   Power Loss Control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |
| Embedded BIOS Features    | AMI Aptio® UEFI 2.x firmware   8 MByte serial SPI firmware flash   High Accessible Program (HAP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |
| Security                  | The conga-TS67 can be optionally equipped with a discrete "Trusted Platform Module" (TPM). It is capable of calculating efficient hash and RSA algorithms with key lengths up to 2,048 bits and includes a real random number generator. Security sensitive applications such as gaming and e-commerce will benefit also with improved authentication   integrity and confidence levels.                                                                                                                                                                                                                                                                                                                                        |  |  |  |  |  |  |
| Power Management          | ACPI 4.0 with battery support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |
| Operating Systems         | Microsoft® Windows 8   Microsoft® Windows 7   Linux   Microsoft® Windows® embedded Standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |
| Power Consumption         | Typ. application: tbd.   see manual for full details   CMOS Battery Backup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |  |
| Temperature               | Operating: 0 +60°C   Storage: -20 +80°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Humidity                  | Operating: 10 - 90% r. H. non cond.   Storage: 5 - 95% r. H. non cond.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |
| Size                      | 95 x 125 mm (3.74" x 4.92")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |

## conga-TS67 | Block diagram



## conga-TS67 | Order Information

#### Article

conga-TS67/i7-2655LE

conga-TS67/i7-2610UE

conga-TS67/i3-2340UE

conga-TS67/847E

conga-TS67/827E

conga-TS67/807UE

conga-TS67/HSP-HP-B

conga-TS67/HSP-HP-T

conga-TS67/CSP-HP-B

conga-TS67/CSP-HP-T

conga-TS67/CSA-HP-B

conga-TS67/CSA-HP-T

DDR3L-SODIMM-1600 (2GB)

DDR3L-SODIMM-1600 (4GB)

DDR3L-SODIMM-1600 (8GB)

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| PIN    | Description                                                                                                                                                                                                                                |  |  |  |  |  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 046401 | Intel® Core™ i7-2655LE dual core processor with 2.2GHz   4MB L3 cache and 1333MT/s dual channel DDR3 memory interface                                                                                                                      |  |  |  |  |  |
| 046402 | Intel® Core™ i7-2610UE dual core processor with 1.5GHz   3MB L3 cache and 1333MT/s dual channel DDR3 memory interface                                                                                                                      |  |  |  |  |  |
| 046403 | Intel® Core™ i3-2340UE dual core processor with 1.3GHz   3MB L3 cache and 1333MT/s dual channel DDR3 memory interface                                                                                                                      |  |  |  |  |  |
| 046404 | Intel® Celeron® 847E dual core processor with 1.1GHz   2MB L3 cache and 1333MT/s dual channel DDR3 memory interface                                                                                                                        |  |  |  |  |  |
| 046405 | Intel® Celeron® 827E single core processor with 1.4GHz   1.5MB L3 cache and 1333MT/s dual channel DDR3 memory interface                                                                                                                    |  |  |  |  |  |
| 046406 | Intel® Celeron® 807UE single core processor with 1.0GHz   1MB L3 cache   1333MT/s single channel DDR3 memory interface and no PEG Port                                                                                                     |  |  |  |  |  |
| 046450 | Standard heatspreader for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes. All standoffs are with 2.7mm bore hole                                                                                      |  |  |  |  |  |
| 046451 | Standard heatspreader for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes. All standoffs are M2.5mm thread                                                                                             |  |  |  |  |  |
| 046452 | Standard passive cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes 15mm silver fins and 20mm overall heat sink height. All standoffs are with 2.7mm bore hole                       |  |  |  |  |  |
| 046453 | Standard passive cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes 15mm silver fins and 20mm overall heat sink height. All standoffs are M2.5mm thread                              |  |  |  |  |  |
| 046454 | Standard active cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes   15mm silver fins   20mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole |  |  |  |  |  |
| 046455 | Standard active cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes   15mm silver fins   20mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread        |  |  |  |  |  |
| 068755 | DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 2GB RAM                                                                                                                                                                        |  |  |  |  |  |
| 068756 | DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 4GB RAM                                                                                                                                                                        |  |  |  |  |  |
| 068757 | DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 8GB RAM                                                                                                                                                                        |  |  |  |  |  |
|        |                                                                                                                                                                                                                                            |  |  |  |  |  |

#### Accessories

| conga-TEVAL                            | 065800 | Evaluation carrier board for Type 6 COM-Express-modules                       |
|----------------------------------------|--------|-------------------------------------------------------------------------------|
| conga-LDVI/EPI                         | 011115 | LVDS to DVI converter board for digital flat panels with onboard EEPROM       |
| COM-Express-carrier-<br>board-Socket-5 | 400007 | Connector for COM-Express carrier boards   height 5mm   packing unit 4 pieces |
| COM-Express-carrier-<br>board-Socket-8 | 400004 | Connector for COM-Express carrier boards   height 8mm   packing unit 4 pieces |

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